

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number
WO 2005/040294 A1

(51) International Patent Classification⁷: C09D 183/10, C08G 77/42, 77/20, 77/26

(74) Common Representative: DEGUSSA AG; Intellectual Property Management, PATENTE + MARKEN., Bau 1042 - PB 15, 45764 Marl (DE).

(21) International Application Number:
PCT/EP2004/052522

(22) International Filing Date: 13 October 2004 (13.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
103 50 125.8 21 October 2003 (21.10.2003) DE

(71) Applicants (for all designated States except US): DEGUSSA AG [DE/DE]; Bennigsenplatz 1, 40474 Düsseldorf (DE). REMBRANDTIN LACK GMBH [AT/AT]; Ignaz-Köck-Strasse 15, A-1210 Wien (AT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): EDELMANN, Roland [DE/DE]; Hallwilstrasse 12, 79618 Rheinfelden (DE). MONKIEWICZ, Jaroslaw [PL/DE]; Burstelstrasse 2 a, 79618 Rheinfelden (DE). BORUP, Bjørn [DE/DE]; Am Hochgericht 45, 79618 Rheinfelden (DE). MEHNERT, Reimer [DE/DE]; Mittelstrasse 6, 04416 Markkleeberg (DE). ELSNER, Christian [DE/DE]; Huttenstrasse 28, 04249 Leipzig (DE). CULIK, Hubert [AT/AT]; Nico-Dostal-Strasse 13, A-2000 Stockerau (NO) (AT). BREITWIESER, Christian [AT/AT]; Ausstellungsstrasse 18, A-1020 Wien (AT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITION FOR PRODUCING A BARRIER LAYER FOR GASES

(57) Abstract: Organosilane-based composition for producing a barrier layer for gases, comprising (i) at least one organoalkoxysilane whose organofunctionality displays at least one unsaturated hydrocarbon group, (ii) at least one aminoalkylalkoxysilane, (iii) at least one polyol, (iv) optionally, another alkoxysilane or alkoxysiloxane, and (v) optionally, at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide, and/or (vi) at least one cocondensate composed of the components (i), (ii), (iii), and, optionally, (iv), and also, optionally, (v), and/or (vii) reaction products produced under hydrolysis conditions from the components (i), (ii), (iii), and, optionally, (iv), and also, optionally, (v) (viii) and organic solvent, with the proviso that there is a molar ratio (i) : (ii) : (iii) where (i) = 1 and (ii) = from 0.5 to 1.5, and (iii) = from 0.3 to 1.1. The invention also relates to a process for producing, and the use of, the composition, and to packaging materials produced using the composition.

WO 2005/040294 A1